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June 27, 2005

By Courier and E-File

Mary L. Cottrell, Secretary Department of Telecommunications and Energy One South Station, 2nd floor Boston, MA 02202

> Bay State Gas Company, D.T.E. 05-27 Re:

Dear Ms. Cottrell:

Enclosed please find a supplemental response to AG 2-1, 2-7 and 2-11, consisting of sample system maps and sample Work Order Management System ("WOMS") printouts which were previously provided to the Attorney General by letter dated June 17, 2005 to Alexander J. Cochis.

Very truly yours,

Robert L. Dewees, Jr.

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Caroline O'Brien Bulger, Esq., Hearing Officer cc:

A. John Sullivan, DTE (4 copies of WOMS printouts - bulk; 1 copy of system maps - bulk)

Andreas Thanos, Assistant Director, Gas Division

Alexander J. Cochis, Assistant Attorney General (1 copy of WOMS printouts - bulk) Paul R. Osborne, Assistant Director, Rates and Revenue Requirements Division (1 copy)

Service List

COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

RESPONSE OF BAY STATE GAS COMPANY TO THE SECOND SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL D. T. E. 05-27

Date: June 27, 2005

Responsible: Danny G. Cote, General Manager

AG-2-1 For each of the years from 1990 to 2005, please provide the following:

- a) the rate of corrosion leaks per mile for bare steel for the Company;
- b) the rate of corrosion leaks per mile for bare steel for each of the Company's separate service areas;
- c) the rate of corrosion leaks per mile for coated steel without cathodic protection for the Company;
- d) the rate of corrosion leaks per mile for coated steel without cathodic protection for each of the Company's separate service areas; and
- e) plot the corrosion leaks on system maps for each of the Company's separate service areas.
- f) Provide all work papers, calculations and assumptions for (a)-(d).

SUPPLEMENTAL RESPONSE

Response:

Attached are a number of sample distribution system maps and printouts from the Bay State Work Order Management System (WOMS).

Attached to this response are:

- 1. Samples of distribution system maps. Included are samples of three types of maps from the Brockton Division:
 - a. Brockton Division all (map of entire Division showing location of large diameter mains)
 - b. Sample Kit Map scale 1" = 400 feet (1 of 236 maps)
 - c. Sample Grid Map scale 1" = 40 feet (1 of approximately 9600 maps)

Each map depicts a smaller and more detailed portion of the distribution system. Individual residences are shown in the Grid Map. The location of the Kit Map can be identified on the Division Map by the number 91, which is the number of the Kit Map shown on the lower right hand corner of the Kit Map. The location of the Grid Map can then be located on the Kit Map by use of the coordinates on the corners of the Grid Map.

2. Sample Leak Plot Maps for:

Brockton Division - Town of Walpole

(Walpole street list, plus 3 maps)

3. Leak Plot Maps, 2003-2005 for:

Lawrence Division (33 maps in total; leaks are plotted by year, each year with a different color; some maps are of areas with no leak plots)

Work Order Management System (WOMS) printouts:

The leak reporting computer-based program used by the Company can produce various printouts for a particular location or type of data needed. The printouts are generally discarded after use. The WOMS can print (1) distribution work orders; (2) work order lists; (3) pipe condition reports; (4) leak reports; (5) additions reports; (6) retirement reports; and (7) leak repair reports. In addition, in Brockton, the Bay State operations center maintains its leak report data on a Microsoft Access system. The Company's field, engineering, resource planning, operations, mapping and corrosion personnel all rely on these databases. In order to monitor corrosion, the Company's corrosion specialists will query the WOMS for the necessary data. The WOMS only contains data on pipe that has been exposed and repaired. It is not a general plant accounting system, and pipe with no maintenance history cannot be searched through WOMS.

WOMS contains 18 cause-of-leak subcategories: excavation/3rd party damage; threads; steel corrosion; materials and welds; material failure (2004 DOT definition); investigative (temporary, cause unknown); natural force; corrosion on cast iron; joint leaks (cast iron bell joint); fit leak (meter fit); excavation (by Bay State); excavation (by Bay State contractor); excavation (other); and other.

WOMS accounts for 11 pipe types: bare, cast iron, coated, copper, HD plastic, plastic insert, plastic, protected coated, screw end, stainless, unprotected coated, and wrought iron. It contains 10 years of data, and can be queried by street, town, and city.

The Company has run a number of sample printouts for your review, which are identified in A-F below. This information, combined with the leak maps and mains write-ups and repairs files, constitute the data and information used to analyze leak history, corrosion and mains repairs.

It is not yet possible to search the WOMS by steel pipe type as those are new fields and have yet to be populated in the WOMS. On the material enclosed, bare and unprotected coated and coated protected all appear under a query for bare steel. In the future, the WOMS will be further developed to reflect the individual pipe type fields.

The WOMS printouts enclosed are identified with the following letters:

- A DOT Leak Report wwrpt050.p This report is chronological for the Brockton Division, showing leaks appearing in leak cause, "Corrosion on Steel," for January 1, 2005 through January 31, 2005.
- B Pipe Condition Report wwrpt031.p This report shows the pipe and coating condition observed by crews when the pipe has been exposed to repair a leak, sorted by town, then status, then street name for all towns for the month of January 2005.
- C- DOT Retirements Report wwrpt051.p This report shows gas mains retired by size and material for 2004.
- D DOT Additions Report wwrpt052.p This report shows gas mains that replace the gas mains that are retired or abandoned, sorted by work code, then work order number, for 2004.
- E DOT Leak Repairs Report wwrpt053.p This report shows all leaks repaired regardless of cause of the leak. Contrary to what its name implies, this report cannot be run by selecting "cause of leak," such as "corrosion on steel," as a sorting parameter.
- F DOT Leak Report wwrpt050.p This report was run chronologically for the Brockton Division for the period January through June 15, 2005. Corrosion on Steel is a sorting parameter, but it is not possible to determine the type of steel.

Leak reports are generally run weekly for planning purposes, but are not maintained after the work for the week has been established.

A separate computer based system, the Compliance Management System, or CMS, is used to track code compliance, corrosion testing on cathodically protected services, and service retirements. This is a planning model that assists operations personnel in planning and completing code compliance work. In this system, services can be searched by pipe type, and CMS is updated for new plant.

BULK

COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

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Date: June 27, 2005

Responsible: Danny G. Cote, General Manager

AG-2-7 Describe the Company's corrosion monitoring program for all types of materials

(cast iron, bare steel, coated steel with cathodic protection, coated steel without cathodic protection and plastic) used in Company's distribution system by service area and provide the year when the program went into effect, the date of any changes, and the details of the sampling program for each type of material.

Response: SUPPLEMENTAL RESPONSE

Please see Bay State's supplemental response to AG-2-1.

COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

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Date: June 27, 2005

Responsible: Danny G. Cote, General Manager

AG-2-11 Produce copies of all reports, memorandums and analysis related to mains and services corrosion monitoring the Company's service territories prepared by Company employees.

Response: SUPPLEMENTAL RESPONSE

Please see Bay State's supplemental response to AG-2-1.